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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/761,703 | 01/18/2001 | Takako Asahi | 862.C2089 | 4719 |

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| EXAMINER | |
|---|---|
| DIVINE, LUCAS | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2625 | |

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/761,703 | ASAHI, TAKAKO | |
| | Examiner | Art Unit | |
| | Lucas Divine | 2625 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *19 January 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1,3-7,10,13 and 14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-7,10,13 and 14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Amendment*

1. Claims 1, 3-7, 10, 13, and 14 are pending.

### *Response to Arguments*

2. Applicant's arguments with respect to claim 1 and 10 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 10, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kida et al. (US 5852764) in view of Mandel (US 5435544).

Regarding claim 10, Kida teaches **an image forming apparatus** (Fig. 2) **which can be connected to a sheet processing apparatus** (5) **having a plurality of sheet storage trays** (Fig. 1 trays 53, 59, see also col. 30 line 36), **and has a plurality of operation modes including at least two modes from among a copy mode, an image communication mode, and a printer mode** (col. 18 lines 54-56), **wherein any one of the plurality of operation modes can be assigned to each of the plurality of sheet storage trays** (Fig. 8, col. 19 lines 25-35 teach that

the sheet is stored in the output tray according to the output mode selected for it, see also col. 2 lines 30-33 and col. 18 lines 65-67), **said apparatus comprising:**

**display control means** (operation panel unit 45, Fig. 4) **for displaying display windows corresponding to the operation modes on a display device independently for the respective operation modes** (the display window 6 inherently displays information corresponding to the selected operation mode in order to provide the user unique options and settings for each; for example, the fax mode has dialing options that would only be displayed for the fax mode); **and**

**control means** (sheet control unit 46, Fig. 4, col. 12 lines 29-34, col. 16 lines 27-29) **for, in response to said display control means switching to display a window corresponding to an operation mode amount the plurality of operation modes, controlling the sheet processing apparatus so as to** allow **a sheet storage tray, which is assigned to the switched operation mode, so that the sheet storage tray can store a sheet** (col. 2 lines 5-10, teaching shifting transport paths in the sorter based on what mode is selected – col. 4 line 66 – col. 5 line 3 further teach the sheet 'can' [is enabled to] be discharged onto the appropriate tray as selected according to the mode) **even if not receiving a job data for the switched operation mode** (as shown in Fig. 4, the sheet control unit 46 never receives job/image data, just information about what mode the printer is currently in – the job data [Fig. 4] comes in on CCD 2-4, is processed and stored by 41, 43, and is output or communicated in 42 or 47).

Kida specifically discusses in col. 30 lines 32-46 being able to have other sorter configurations, but Kida does not specifically teach that while having more trays, they could be implemented as ones with changeable positions.

However, sorters with a plurality of shifting trays are well known in the art. For example, Mandel teaches a sorting unit including changing the position of an assigned sheet storage tray to a sheet discharge position so that the tray can store a sheet printed out for that tray (Fig. 9A, 9B, 18 and associated descriptions; also col. 9 lines 1-10).

As Kida alludes to, it would have been obvious to one of ordinary skill in the art to have more trays then two in a sorter, as Mandel teaches, thus changing the two tray system of Kida to a multi-bin system like Mandel, which includes trays of changeable position. The motivation for doing so would have been to allow more sorting of printed output (e.g. if you have 10 copies, each copy can have its own trays) or at the very least to have 3 different trays – one for each of the printing, copying, and facsimile modes of Kida – so one tray doesn't need to be shared between modes.

Regarding claim 13, the structural elements of apparatus claim 10 perform all of the steps of method claim 13. Claim 13 is therefore rejected for the reasons stated in the rejected claim 10.

Regarding claim 14, the operation of the program storage medium of claim 14 performs the steps of method claim 13 within a computer readable medium. Therefore, claim 14 is rejected for the reasons stated in the rejection of method claim 13. Kida further teaches the use of a CPU 44 capable of performing the method steps as claimed in claim 13 as well as hard disk 43 to store the necessary program data and steps.

4. Claims 1, and 3 – 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kida in view of Mandel and Yoshida et al. (US 6388759).

Regarding claim 1, Kida teaches **an image forming apparatus** (Fig. 2) **which can be connected to a sheet processing apparatus** (5) **having a plurality of sheet storage trays** (Fig. 1 trays 53, 59, see also col. 30 line 36)**, and has a plurality of operation modes including at least two modes from among a copy mode, an image communication mode, and a printer mode** (col. 18 lines 54-56, Fig. 8)**, said apparatus comprising:**

**control means** (Fig. 4, sorter control unit 46 controls the sheet output) **for, in response to setting the image forming apparatus to a predetermined operation mode, controlling the sheet processing apparatus so as to** allow **a storage sheet tray, which is assigned to a predetermined mode,** to store a sheet (Fig. 8, col. 19 lines 25-35 teach that the sheet is stored in the output tray according to the operation mode - col. 2 lines 5-10, teaching shifting transport paths in the sorter based on what mode is selected – col. 4 line 66 – col. 5 line 3 further teach the sheet 'can' [is enabled to] be discharged onto the appropriate tray as selected according to the mode) **even if not receiving a job data for the switched operation mode** (as shown in Fig. 4, the sheet control unit 46 never receives job/image data, just information about what mode the printer is currently in – the job data [Fig. 4] comes in on CCD 2-4, is processed and stored by 41, 43, and is output or communicated in 42 or 47).

While Kida teaches an image forming apparatus with operation modes and an initial state (col. 38 line 53) and normal mode (col. 13 lines 12-13) as well as discusses the desire to put the mode that is 'mainly used' in the top try for best accessibility (col. 3 lines 35-50 and col. 5 lines 10-15), Kida does not specifically teach a **determining of a no-operation state for a predetermined time or shifting the operation mode based on the determining result**.

Yoshida teaches an image forming apparatus with operation modes (including copy, print and fax) and **determination means for determining whether a no-operation state by an operator continues for a predetermined time; and auto-clear operation means for automatically setting the image forming apparatus to a predetermined operation mode from among of the plurality of operation modes on the basis of a determination result of said determination means** (col. 1 lines 17-23; col. 2 lines 29-34; col. 4 line 17-col. 5 line 32 'setting an operation mode back to an initial mode').

Kida and Yoshida are combinable because they both teach image forming apparatuses with operation modes (including print, copy, and fax), user operation areas, sheet storage trays, and photocopy units.

It would have been obvious to one of ordinary skill in the art to shift modes based on the no-operation time determining unit of Yoshida in the mode-shifting device of Kida. The motivation for doing so would have been to automatically place the device in a standard mode if there has not been activity for a while, saving the next user time and effort if they (predictably) would want to use the 'normal' mode (see Yoshida col. 1 lines 51-59, wherein it is advantageous to have an auto-clear function). This would be advantageous in the system of Kida because Kida teaches that the 'normal' mode of the taught invention is for copying (col. 1 line 14, wherein the normal mode is copying; col. 3 lines 35-50 and col. 5 lines 10-15).

While Kida specifically discusses in col. 30 lines 32-46 being able to have other sorter configurations, Kida and Yoshida do not specifically teach that while having more trays, they could be implemented as ones with changeable positions.

However, sorters with a plurality of shifting trays are well known in the art. For example, Mandel teaches a sorting unit including changing the position of an assigned sheet storage tray to a sheet discharge position so that the tray can store a sheet printed out for that tray (Fig. 9A, 9B, 18 and associated descriptions; also col. 9 lines 1-10).

As Kida alludes to, it would have been obvious to one of ordinary skill in the art to have more trays then two in a sorter, as Mandel teaches, thus changing the two tray system of Kida to a multi-bin system like Mandel, which includes trays of changeable position. The motivation for doing so would have been to allow more sorting of printed output (e.g. if you have 10 copies, each copy can have its own trays) or at the very least to have 3 different trays – one for each of the printing, copying, and facsimile modes of Kida – so one tray doesn't need to be shared between modes.

Regarding claim 3, which depends from claim 1, Kida teaches **a user interface including a display device commonly used in the respective modes** (touch panel liquid crystal display 6 shown in Figs. 5 and 8 inherently must show windows corresponding to the modes in order for the user to select mode options for each),

**wherein in response to said auto-clear operation means setting the image forming apparatus to the predetermined operation mode, display control is performed to display a display window corresponding to the predetermined operation mode** (since the shifting means shifts the *mode* in claim 1, it is inherent that the display would shift as well because the device itself is shifting modes, not just the sheet apparatus).

Regarding claim 4, which depends from claim 1, the combination further teaches **setting means for selecting a mode to be set to by said auto-clear operation** (in order to have a

predetermined mode to automatically set to in claim 1, the mode to be shifted to must have been selected).

Regarding claim 5, which depends from claim 1, Kida further teaches a system **further comprising setting means for performing setting of assigning any one of the plurality of operation modes to each of the plurality of sheet storage trays** (Fig. 8).

Regarding claim 6, the structural elements of apparatus claim 1 perform all of the steps of method claim 6. Claim 6 is therefore rejected for the reasons stated in the rejected claim 1.

Regarding claim 7, the operation of the program storage medium of claim 7 performs the steps of method claim 6 within a computer readable medium. Therefore, claim 7 is rejected for the reasons stated in the rejection of method claim 6. Kida further teaches the use of a CPU 44 capable of performing the method steps as claimed in claim 6 as well as hard disk 43 to store the necessary program data and steps.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sumida (US 4851878) teaches copy information output device for a copier including auto-clear (col. 3 lines 45-62). Miyake (US 5042793) teaches sheet sorter image forming apparatus having same including movable trays. Kusumoto et al. (US 4881104) teaches image forming apparatus having a plurality of feed openings, see description of Fig. 6.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Note to applicant: Examiner Divine's Art Unit has changed from 2624 to 2625.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucas Divine whose telephone number is 571-272-7432. The examiner can normally be reached on Monday - Friday, 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached on 571-272-7471. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

3/28/2006

Lucas Divine

KING Y. POON
PRIMARY EXAMINER